

Claims

- Sub a1 } 1. A communications network for connecting a number of nodes with a headend, the network comprising:

5 two optical networks each comprising a plurality of splitters or couplers serially connected by optical waveguides such that an output port of one splitter/coupler is coupled to an input port of another splitter/coupler, and wherein an input or output for each said node is formed by a non-serially connected input or output port of a said splitter or coupler from each said optical network.

- 10 2. A communications network as claimed in claim 1 wherein each optical network comprises a plurality of serially connected splitters for outgoing traffic and a complementary plurality of serially connected couplers for incoming traffic.

- Sub a1 } 3. A communications network as claimed in claim 1 wherein said optical networks are fibre networks.

- 15 4. A communications network as claimed in claim 1 wherein the splitters and couplers are periodic interleaving filters.

- Sub a1 } 5. A communications network as claimed in claim 4 wherein the filters are fused fibre couplers.

- 20 6. A communications network as claimed in claim 1 wherein two of said serially connected splitters or couplers are co-located

7. A communications network for connecting a number of nodes with a headend, the network comprising:

25 two fibre networks each comprising a plurality of splitters or couplers serially connected by optical fibre such that an output port of one splitters/coupler is coupled to an input port of another splitter/coupler, and wherein an input or output for a said node is formed by a non-serially connected input or output port of a said splitter or coupler;

in the two optical networks together form a ring architecture;  
 method of operating a communications network for connecting  
 s with a headend, the network comprising:  
 optical networks each comprising a plurality of splitters or c  
 ected by optical waveguides such that an output  
 er/coupler is coupled to an input port of another splitter  
 in an input or output for each said node is formed by  
 ected input or output port of a said splitter or coupler f  
 al network; said method comprising:  
 g traffic between said headend and said nodes.

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